

Idaho Wind Power Development Strategic Plan



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Idaho Wind Power Working Group**



**Idaho Department of Water Resources
Energy Division**

December, 2002

IDAHO WIND POWER DEVELOPMENT STRATEGIC PLAN

for the

Idaho Wind Power Working Group

Prepared by the

Idaho Wind Power Ad Hoc Steering Committee



**Idaho Department of Water Resources
Energy Division
1301 North Orchard St.
Boise, Idaho 83706**

December, 2002

Idaho Wind Power Working Group

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PREFACE

The purpose of the Idaho Wind Power Development Strategic Plan document is to provide brief background and current information on wind power development in Idaho and a framework for accomplishing the mission, goals, and strategic objectives of the Idaho Wind Power Working Group. It has been divided into two major parts, namely: Part I – Background, and Part II – Strategic Plan.

Idaho Wind Power Development Strategic Plan

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IDAHO WIND POWER DEVELOPMENT STRATEGIC PLAN

PART I. BACKGROUND

Introduction

The energy shortages in the West and concern with long-term availability of competitive electric power in the Gem State have prompted the Idaho Energy Division and other stakeholders to consider alternative energy resources that could be used to generate clean and locally produced electricity. One of the most promising is wind.

Idaho is a net importer of electricity. This in itself is not bad. Other parts of the country may be able to generate electricity more efficiently, making it to Idaho's advantage to trade for its electricity. There may be energy resources within Idaho that are not being used that could add to the wealth of its people and should be investigated. Much of Idaho's economic strength has been due to its use of natural resources, including hydropower. There may still be potential for limited future hydro development in Idaho, but Idaho wind is mostly untapped. If it proves economically viable, the development of wind energy resources will help support the continued growth and health of Idaho's economy.

Current wind resource maps show that Idaho has potentially significant wind resources, mostly in rural areas. Wind, therefore, may be able to provide both electric power to the region and economic development opportunities for rural areas. For these reasons, the state of Idaho, through the Idaho Energy Division, is launching the Idaho Wind Energy Initiative. The goal of the Initiative is to facilitate economic wind power system development.

Benefits of Wind Power

Wind power developments have been occurring in all the states surrounding Idaho, as well as other states in the nation. Wind power is providing important benefits to these states. Some of the key benefits that could be derived from wind-generated electricity in Idaho are the following:

- ***Rural Economic Development*** – excellent wind resources tend to be located in rural areas that desperately need new sources of jobs and income. Commitment to develop wind resources in Idaho could alleviate the economic downturn being experienced by rural areas.
- ***Employment*** – wind power generating facilities also provide local employment and related economic activity. During construction, a number of jobs are created. When the generating facilities are operating, they require employment over the life time of the wind power plants.

- **Landowner Revenues** – wind power offers a new cash crop for landowners. Wind turbines on farmland, with minimal interference to on-going farming activities, can provide additional income to farmers that can exceed traditional farming revenues. For example, some farmers in the northwest are receiving annual royalties between \$1,500 to \$2,000 per turbine.
- **Tax Revenues** – new wind development could generate property tax revenues and contribute to the tax base in rural communities.
- **Other Benefits** – additional benefits that could be derived from wind power development in Idaho are reduced emissions of pollution, diversity of energy resources, reduced energy imports and export potential.

Wind Powering America

The Idaho Energy Division and the Idaho Wind Power Working Group plan to work toward these goals in coordination with the U.S. Department of Energy's Wind Powering America (WPA) program. Through this program, the United States will achieve targeted regional economic development, reduce air pollution, lessen the risks of global climate change and increase energy security. This program is a commitment by the U.S. Department of Energy to dramatically increase the use of wind energy in the United States. WPA's specific goals include:

- Provide at least 5% of the nation's electricity with wind by 2020.
--more than 5,000 megawatts will be installed by 2005.
--over 10,000 megawatts will be on-line by 2010.
- Double the number of states which have more than 20 megawatts of wind capacity to 16 by 2005, and triple the number to 24 by 2010.
- Increase wind's contribution to federal electricity use to 5% by 2010.

Wind Committees and Associations

The Idaho Wind Power Working Group will work with all available human and capital resources to facilitate the development of economically viable wind energy production in Idaho. Among these resources are:

American Wind Energy Association.
National Wind Coordinating Committee.
Windustry.
Other organizations promoting renewable energy resources.

Wind Resources in Idaho

Although the estimation of wind energy resources is rudimentary, it indicates that Idaho has substantial wind energy resources. A high resolution wind resources map for Idaho, which is part of the Northwest Wind Maps Project, was prepared by TrueWind Solutions, LLC, and validated by the National Renewable Energy Laboratory (NREL) and independent meteorologists. (See Appendix A-Idaho Wind Resource Maps.) The project was coordinated by the Northwest Sustainable Energy for Economic Development (NWSEED) and the Northwest Cooperative Development Center

(NWCDC) and sponsored by NREL, the Bonneville Power Administration (BPA), and numerous other organizations.

Although these new wind maps will not eliminate the need for on-site wind resource measurement for large-scale installations, they are designed to help utilities, developers and interested parties screen out less promising areas, significantly minimizing the cost and timing of prospecting. They are also intended to help landowners make a first-cut determination of the feasibility of installing distributed wind turbines to supply power for homes, farms and ranches.

There are many anemometers located throughout the state, but they have not been placed in areas to measure wind for energy production. Agencies that measure wind speed in Idaho for specific purposes include the National Oceanic and Atmospheric Administration, U. S. Bureau of Reclamation, Idaho National Engineering and Environmental Laboratory and the Idaho Transportation Department.

In order to quantify a wind resource in a specific site, wind speed must be measured and evaluated. The Idaho Energy Division has received a small grant from the U.S. Department of Energy for the acquisition of anemometers to be used to confirm potential wind sites in Idaho for commercial or utility-scale wind power development. The Idaho Energy Division is also coordinating with the Idaho National Engineering and Environmental Laboratory, University of Idaho State Climate Services, National Renewable Energy Laboratory and the Bonneville Power Administration to conduct wind resource siting, monitoring and analysis.

Overview of Wind Power Development In Idaho

There has been very little wind energy development in Idaho. To the knowledge of Idaho Energy Division staff, there are no wind turbines above 25 kW in size operating in Idaho. The number of those systems 10 kW or under is relatively small.

According to the Idaho Public Utilities Commission records, the Idaho Power Company filed a request for approval of the purchase of non-firm energy from Lewandowski Farms in Elmore County in July 2001. This wind power facility will consist of two wind turbines rated at 112 kW each. The project will qualify as a small power production facility under the applicable provision of the Public Utilities Regulatory Act of 1978 (PURPA).

Issues, Needs and Barriers to Wind Power Development in Idaho

The Idaho Energy Division organized and conducted wind power information meetings in Boise, Twin Falls, Pocatello and Idaho Falls in May 2001, and the Idaho Wind Power Conference in Boise on October 22-23, 2001. Idaho Governor Dick Kempthorne also proclaimed October 21 through 27, 2001 as Idaho Wind Power Awareness Week (see Appendix B). In these meetings participants identified issues, needs and barriers to commercial wind energy developments in Idaho. Wind energy experts, including Larry Flowers from the National Wind Technology Center at NREL, Jay Haley, a wind farm

development consultant, and the members of the Idaho Wind Power Ad Hoc Steering Committee also offered their views.

The following are the major issues and barriers identified:

- ***Inadequate wind energy resource data.***

Wind energy developers and bankers need high quality wind resource data that meet their standards. Measurements of wind energy potential must have credibility. This can be achieved through the employment of a qualified and trusted third party. There is more to assessing wind energy potential than simply measuring it. Knowledge of wind farm development, electricity sales, costs, access to transmission and availability of wind turbines are all important in providing a credible estimation of a project's profit potential. While the government can play this role, it has finite human and capital resources and can not meet the demand on its own. In order to achieve its purpose, it must catalyze market economy (private sector) resources.

- ***There is no state policy on net-metering. Policy is needed to ensure win-win solutions for producers and utilities.***

Net-metering is an electric rate tariff that counts the generation by a customer as a reduction in use. For example, if a resident with a solar system used 1,000 kWh in a month and his solar system generated 400 kWh in that same month, he would owe the utility payment for the 600 kWh of net usage. This is true if the net-metering tariff called for monthly balancing of use and generation accounts. In its simplest form, only one meter would be used and it would integrate all the use and generation over a month and read the balance.

Net-metering tariffs are not the same for all utilities in Idaho. One utility offers net-metering only to residential and small commercial customers, and another offers the option to all user classes. Some balance on a monthly basis, others on an annual basis.

Small scale wind needs something like net-metering to realize its full value, either this or an extremely low-cost means of storing energy. Idaho has a low-cost energy storage medium available in water stored behind dams. Net-metering with the hydro system would allow small-scale wind producers to, in essence, tap into the energy storage capability of the utilities' dams.

To encourage the full potential of small-scale wind energy development, the balancing of generation and use needs to be done on an annual basis. Because wind is seasonal in nature, its ability to generate energy varies greatly from one season to another and perhaps even year to year. Not only this, the producer's use of electricity may vary considerably from one season to another. For example, a farmer in Idaho generally irrigates fields in the summer. The wind may blow a great deal in the spring, then not much in the summer. The irrigator will generate a great deal of energy in the spring and use a great deal of energy in the summer. On an

annual basis, the amount of energy generated may almost be the same as the amount of energy used.

In the case where a landowner has an annual use of electricity that is closely matched with a similar annual production of renewable energy, it makes sense to take advantage of this resource. It is a form of demand side management. When the renewable energy source is generating electricity, it appears to the utility that demand in the local area has been lowered.

To help Idaho make use of its renewable energy resources, utilities must make money on the net-metering deal, but so must renewable energy generating landowners. There should be a means to develop a workable win-win form of net-metering in Idaho.

Idaho has a unique situation where wind resources can be used to offset the demand for power on the hydro system. The hydropower can be used at other times when the wind resource is not available and when electricity demand is greater.

- ***Need to develop policies to encourage or require utilities to build or acquire energy generated by wind resources (e.g., renewable portfolio standard, set asides, or system benefits charges).***

The ideal situation is that an open market takes care of the allocation of resources. Why should wind or other renewable energy resources get a preference over other forms of electricity generation? If there is a renewable portfolio standard will the wind turbines that are built be competitive long-term and regionally?

On the other hand, does the development of wind energy require a jump-start? Once wind power gets a foothold, can it compete with other resources that do not have the same barriers? Obviously, special consideration such as the Bonneville Power Administration's recent request for 1,000 megawatts of wind-generated electricity does stimulate the market. How much wind power would have been selected had the request for proposals been open to all forms of generation? Yet, considering the volatility of natural gas prices, is the procurement of wind energy still in the long-term best interests of the region despite its current higher cost?

In the absence of policies to encourage wind development, it appears that the state prefers to allow wind energy to be developed where it is competitive in the long run against current competition, not just built to meet an arbitrary requirement. A comment from the participants at the wind energy information meetings in the spring of 2001 said that Idaho Power should invest in a wind farm just to gain experience. Does this apply to the state of Idaho as well? Iowa, Minnesota and Texas have renewable portfolio standards or set asides, and there is a great deal of wind energy being developed in those states.

What value is it to the state of Idaho to have more diversified electric power generating resources? California's recent experience shows how risky it is to depend heavily on only one or two. While wind may be more expensive in the short

term, in the long term its costs may be less than non-renewable resources. Is the state legislature or the Idaho Public Utilities Commission willing to burden Idaho electric rate payers in the short term to get long-term benefits? The development of hydropower in the West and in Idaho certainly fits this profile.

- ***Data are needed on power system transmission capacity.***

As a whole, the transmission system in the Pacific Northwest is near its limit in what it can carry. In areas where there is a rapid growth of demand for electricity, transmission may have reached its limit. A specific area in Idaho may show a very excellent wind resource and be close to an existing transmission line, but the capacity of that line may not be able to transmit the power generated by the wind farms to where it is needed.

- ***Lack of information on small wind resource development applicable to Idaho.***

Focussing on large-scale wind energy development will not address the needs of those interested in small wind energy development.

- ***Need to educate policy makers on wind energy.***

Wind energy development in Idaho will likely be affected by legislation. North Dakota and Nevada, for example, changed laws and regulations to make these states much more attractive to wind energy developers.

- ***Need to engage (educate, inform, cooperate with) Idaho's electric cooperatives in the development of the wind energy resource.***

Electric cooperatives are in a unique position to develop Idaho's wind energy resources. They:

- Have their own market for electricity.
- Have access to low-cost financing.
- May be located in areas of high wind, according to the most recent Idaho wind energy potential map.
- Have the legal authority to generate and consume their own power.
- May have a need to diversify their electric supply sources.
- May be able to work out arrangements with Bonneville Power Administration or other utilities for a wind-hydro nexus.

- ***Need for increased public awareness of all aspects of wind energy.***

One of the comments at the wind information meetings in the spring of 2001 was:

"There is a need to encourage demonstration projects. A project could be built in the Portneuf Gap where 85,000 cars a day go by."

Just one wind project built in a highly visible location would raise the awareness of wind energy tremendously. Even a relatively small project would have this potential.

- ***Financial risks in wind energy development due to intermittent power.***

Wind energy development is considered risky because it is relatively new. Contrary to this perception is the true nature of wind. In many ways it represents far less risk than traditional electric energy production resources such as natural gas. The energy available from the wind may vary considerably from day to day or week to week, but it does not vary a great deal from year to year. The cost to bring the “fuel” to a wind turbine or wind farm is zero, which is in stark contrast to fossil fuel energy resources.

- ***Availability of wind operation and maintenance infrastructure in Idaho.***

This could be a “chicken or the egg” issue. Build wind power systems in Idaho and the wind operation and maintenance industry will come. On the other hand, if the wind operation and maintenance infrastructure is not in place, there will be less interest in developing wind systems. Obviously, wind power facilities, small-scale or commercial-scale, will need skilled and available professionals to operate and maintain wind power generation systems.

- ***Other Needs and Barriers to be Considered:***

- Inability to obtain long-term power sales contracts.
- Socially important siting conflicts.
- Federal tax incentives.
- Current state policies/rules do not promote development of wind energy for rural communities.
- Transmission policies.
- Ancillary services, forecasting, capacity value/factor.
- Educate local financial institutions.
- Quantify wind-hydro nexus.

PART II. STRATEGIC PLAN

Mission Statement

The mission of the Idaho Wind Power Working Group is:

“To promote wind power development in Idaho. The primary emphasis will be the development of commercial-scale wind farms in Idaho, which may stimulate rural economic development opportunities. Actions will also be taken to promote small-scale wind development.”

Strategic Objectives and Action Plans

In order to provide a framework for guiding the development of commercial or utility-scale wind power projects in Idaho, specific strategies and action plans have to be developed. The strategies have to be in concert with the stated mission of the group.

In developing these strategies and action plans, it is important to address the needs, issues and barriers to development of commercial wind farms. Before development takes place these barriers, both real and perceived, must be overcome.

The following strategic objectives and action plans were developed based on the issues, concerns, needs and barriers discussed previously. During the development of the strategic objectives the SMART strategic plan guidelines were used by the steering committee. These denote:

S – Specific
M – Measurable/Monitorable
A – Achievable
R – Realistic
T – Time-bound

These strategies were initially prioritized by the Idaho Wind Power Ad Hoc Steering Committee.

Strategic Objective 1: Initiate a wind resource assessment program.

Action Plan:

- a. Coordinate with various organizations in establishing, monitoring, analyzing and publishing wind data in Idaho. These organizations include, but are not limited to, the following:
 - ◆ Idaho National Engineering and Environmental Laboratory
 - ◆ Bonneville Power Administration

- ◆ National Renewable Energy Laboratory
 - ◆ University of Idaho State Climate Services
 - ◆ Idaho Energy Division
 - ◆ Idaho Transportation Department
 - ◆ U.S. Geological Survey
 - ◆ U.S. Bureau of Reclamation
- b. Establish a Wind Resources Technical Sub-committee in Idaho.
- dc Coordinate wind measurement activities with other organizations in the region including:
- ◆ Northwest Sustainable Energy for Economic Development
 - ◆ Northwest Power Planning Council
 - ◆ Others
- d. Conduct assessment of all available wind resource data in Idaho.
- e. Develop technical assistance capability.

Strategic Objective 2: Organize an Idaho Wind Power Working Group and develop a strategic plan.

Action Plan:

- a. Organize an Idaho Wind Power Working Group to review, adopt and implement the Idaho Wind Power Development Strategic Plan.
- b. Organize and conduct regular working group meetings to review progress of the strategic action plan.
- c. Maintain the activities of the Idaho Wind Power Working Group.

Strategic Objective 3: Promote the establishment of government policies to encourage development of renewable energy resources including wind. These policies may include:

- ◆ renewable portfolio standards
- ◆ set asides
- ◆ systems benefits charges
- ◆ tax credits
- ◆ incentive based approaches

Action Plan:

- a. Identify a lead organization to champion the drafting of legislation.
- b. Educate the Legislative Energy Utility Restructuring Interim Committee or other appropriate legislative committees.
- c. Work and coordinate with the Idaho Public Utilities Commission.
- d. Identify policy barriers to wind development and incentives for wind power development.

Strategic Objective 4: Increase awareness and understanding of wind power technologies and their costs, benefits, and challenges.

Action Plan:

- a. Organize and conduct wind energy community (grass roots) information meetings especially in areas with high wind energy potential.
- b. Coordinate with organizations, (e.g., Idaho Department of Commerce, Association of Idaho Cities, Idaho Association of Counties and Idaho Regional Economic Development Districts, etc.) to identify counties interested in promoting commercial wind power developments.
- c. Coordinate with the Governor's Office and other agencies in promoting wind power awareness (e.g., wind power awareness proclamation).
- d. Create a clearinghouse for technical information.
- e. Sponsor and conduct wind power development conferences and symposiums with emphasis on economic benefits to rural communities.
- f. Sponsor and conduct renewable energy fairs.
- g. Develop a general wind power consumer information package and other consumer information materials.
- h. Develop case studies as needed.
- i. Support various wind outreach and promotional activities.

Strategic Objective 5: Identify transmission barriers and potential upgrades and expansion.

Action Plan:

- a. Support and coordinate with BPA, independent-owned utilities and rural electric cooperatives concerning on-going efforts to expand transmission facilities especially in high-wind areas.
- b. Provide available information on existing and planned transmission upgrades and expansion to interested parties.
- c. Develop a resource/transmission assessment.

Strategic Objective 6: Promote and assess economic and other benefits of various wind power development projects and provide information to interested parties.

Action Plan:

- a. Initiate economic studies of hydro-wind system (e.g. economic modeling).
- b. Promote the results of the studies featuring the benefits derived.
- c. Identify entities interested in examining wind development incentives in neighboring states and conduct the study.
- d. Evaluate economics and policy aspects of wind-powered and grid-connected on-farm irrigation pumping projects.

- e. Initiate a wind-powered irrigation pumping demonstration system that would qualify under the “net metering” rules set by IPUC.

Strategic Objective 7: Increase the level of awareness of policy makers.

Action Plan:

- a. Coordinate and conduct information meetings before the following committees including:
 - ◆ Idaho Senate Agricultural Affairs Committee
 - ◆ Idaho House Agricultural Affairs Committee
 - ◆ Electric Utility Restructuring Interim Committee
 - ◆ Other appropriate committees
- b. Encourage staff of offices of the Idaho governor and congressional delegations to be members of the Idaho Wind Power Working Group.
- c. Provide expert witness on cases before the IPUC concerning wind power development in Idaho.
- d. Provide information and resources to local units of government on siting wind facilities.

Strategic Objective 8: Promote the development of 300 MW of commercial wind power facilities in Idaho by 2010.

Action Plan:

- a. Encourage private utilities and the rural electric cooperatives operating in Idaho to develop some wind power as part of their resource portfolio.
- b. Engage various organizations to help market the green power programs in Idaho (e.g. Land and Water Fund of the Rockies, etc.).
- c. Encourage INEEL and other federal agencies to aggregate load and buy green power.
- d. Promote the development of proposals for developing wind power projects in Idaho.

Strategic Objective 9: Promote the development of small-scale and medium-scale wind projects in Idaho.

Action Plan:

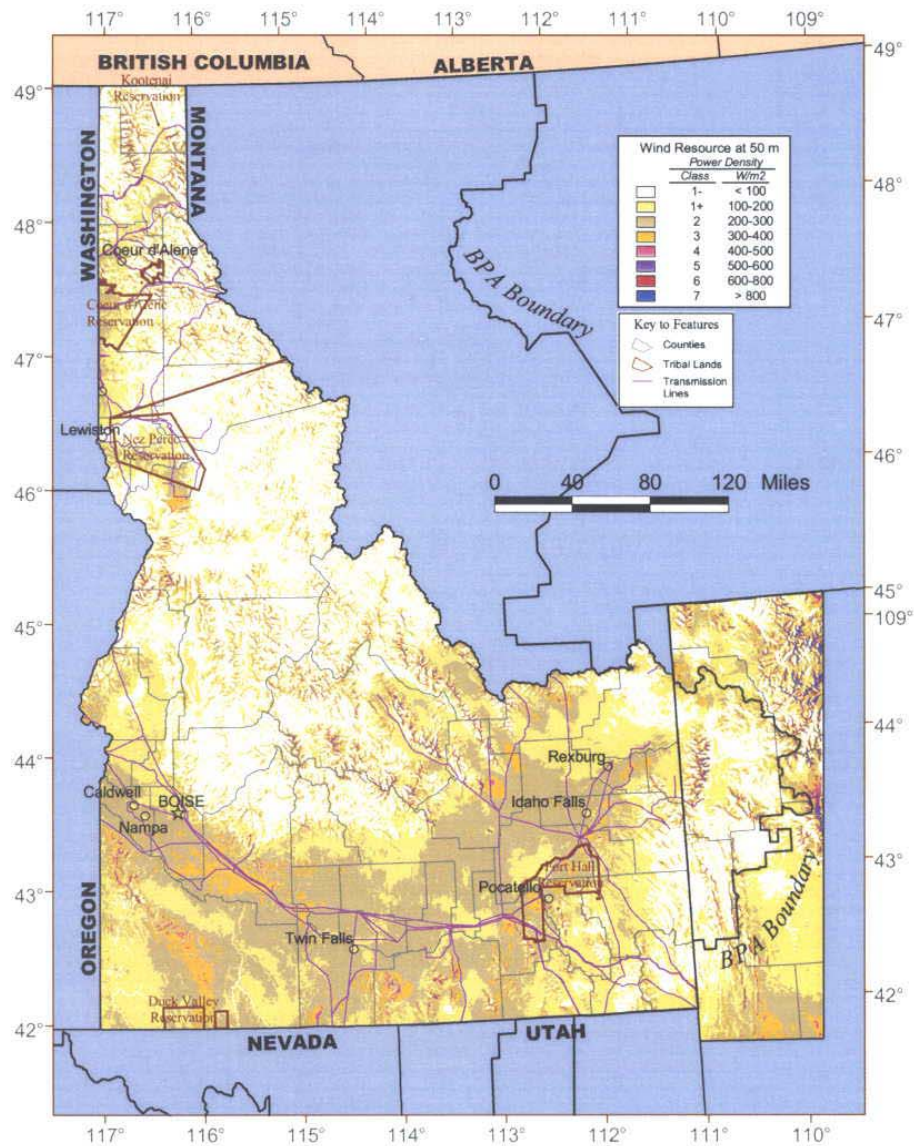
- a. Conduct information meetings and workshops on small-scale wind applications and medium-scale wind projects for irrigation applications in Idaho.
- b. Identify organizations that can provide technical assistance on small-scale wind development.

- c. Refer people with small-scale and medium-scale wind development questions to appropriate parties.
- d. Develop small-scale and medium-scale wind information materials for Idaho consumers.

APPENDIX A

IDAHO WIND RESOURCE MAPS

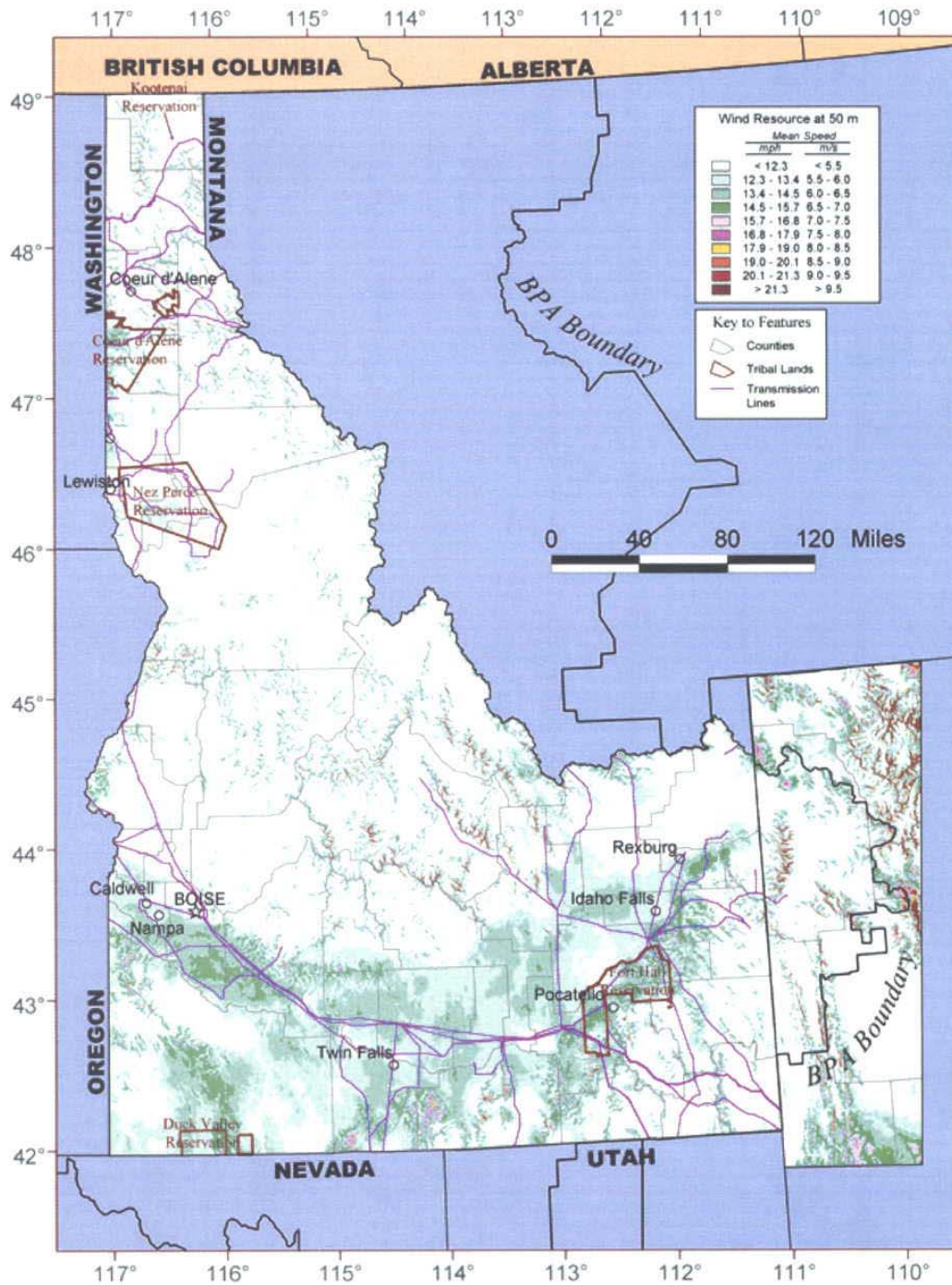
Wind Power Map of Idaho and Western Wyoming at 50m



Projection: Universal Transverse Mercator (Zone 11)
Spatial Resolution of Wind Resource Data: 400 m

This map was created by TrueWind Solutions using the Mesomap system and historical weather data. It has been validated with available surface data by the National Renewable Energy Laboratory. Although it is believed to represent an accurate overall picture of the wind energy resource, estimates at any location should be confirmed by measurement.

Wind Speed Map of Idaho and Western Wyoming at 50m



APPENDIX B

Governor's Proclamation: Idaho Wind Power Awareness Week



Executive Department
State of Idaho

The Office of the Governor
Proclamation

State Capitol
Boise

WHEREAS, Idaho has been blessed with an abundant wind resource that can provide a natural and renewable source of electrical power and which can benefit the citizens of Idaho through economic development in rural areas of the state; and

WHEREAS, commissioners of Idaho rural counties have expressed a sincere interest in the economic potential for development of commercial-scale wind power generation facilities in their counties; and

WHEREAS, small-scale wind energy generation systems can provide Idaho citizens with a practical and economical source of electricity especially in remote regions of our state; and

WHEREAS, the development of commercial-scale wind power production systems in Idaho is a logical continuation of Idaho's strong commitment to environmentally sound energy development and part of a coordinated wind power partnership with the U.S. Department of Energy, the Bonneville Power Administration, the Idaho National Engineering and Environmental Laboratory, and the National Renewable Energy Laboratory's National Wind Technical Center designed to foster a sustainable energy future; and

WHEREAS, Idaho state government, utilities, public interest groups, private sector companies, environmental groups and individuals have shown strong interest and support for the development and use of wind and other renewable energy technologies; and

WHEREAS, an Idaho Wind Power Working Group is being organized to formulate an Idaho Wind Power Development Strategic Plan;

NOW, THEREFORE, I, DIRK KEMPTHORNE, Governor of the State of Idaho, do hereby proclaim October 21 through 27, 2001 to be

IDAHO WIND POWER AWARENESS WEEK

in Idaho, and encourage all Idahoans to learn more about wind power.



IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the State of Idaho at the Capitol in Boise on this twentieth day of October in the year of our Lord two-thousand and one and of the Independence of the United States of America the two hundred twenty-fifth and of the Statehood of Idaho the one hundred eleventh.

DIRK KEMPTHORNE
GOVERNOR

PETE T. CENARRUSA
SECRETARY OF STATE

APPENDIX C

**LIST OF INVITED MEMBER ORGANIZATIONS
AND REPRESENTATIVES**

LIST OF INVITED MEMBER ORGANIZATIONS AND REPRESENTATIVES

JANUARY 2002

Idaho Wind Power Working Group

Avista Utilities, Tom Leinhard

Bonneville Power Administration, George Darr, John Williams

Bureau of Land Management, Jack Peterson

Climate Solutions, Rhys Roth

enXco, Dave Luck

Environmental Protection Agency, Warren McFall

Idaho Association of Counties, Daniel Chadwick

Idaho Counties:

- ♦ Twin Falls County, William Brockman

- ♦ Lemhi County, Michael England

Idaho Department of Commerce, Bob Ford

Idaho Department of Environmental Quality, Ken Hanna

Idaho Department of Lands, George Bacon

Idaho Energy Coalition, Mary McGown

Idaho Energy Division, Gerry Galinato, Gerald Fleischman

Idaho Farm Bureau Federation, Rick Keller, Russ Hendricks

Idaho Falls Electric Division, Van Ashton

Idaho Indian Tribes:

- ♦ Shoshone-Bannock, Nancy Murillo

- ♦ Nez Perce, Julie Simpson

- ♦ Coeur d'Alene, Alfred Nomee

- ♦ Shoshone-Paiute, Reggie Premo

Idaho National Engineering and Environmental Laboratory, Gary Seifert, Shawn West

Idaho Power Company, Scott Gates

Idaho Public Utilities Commission, Bill Eastlake

Idaho Rivers United, Sara Denniston-Eddie

Idaho Rural Council, Kristy Webb

Idaho Cooperative Utilities Association, Bud Tracy

Independent Power Producers, Bob Mooney

Jerome County Planning and Zoning, Xenia Williams

Lewandowski Farms, Robert Lewandowski

Land and Water Fund of the Rockies, Bill Eddie

Natural Resource Conservation Service, Jan Tuma

National Renewable Energy Laboratory, Larry Flowers

Northwest Power Planning Council (Idaho), Shirley Lindstrom

Northwest Sustainable Energy for Economic Development (SEED), Heather Rhoades-Weaver

Pacific Winds, Inc., Rick Koebbe

Renewable Northwest Project, Sonja Ling

Senator Crapo's Office, Sarah Bigger

U.S. Department of Energy, Seattle Regional Office, Curtis Framel

U.S. Forest Service, Barry Burkhardt

University of Idaho Cooperative Extension System, Howard Neibling

University of Idaho State Climate Services, Russell Qualls

Utah Power and Light, Roby Roberts

Windland, Inc., Roald Doskeland

APPENDIX D

SUMMARY OF WIND MEETING NOTES

SUMMARY OF WIND MEETING COMMENTS

(Note: These notes summarize the discussions and comments received from the participants during the Idaho Wind Energy and Rural Economic Development Information Meetings held in Boise, Twin Falls, Pocatello and Idaho Falls on May 8-10, 2001. The notes are not a verbatim summary of the discussions.)

Wind resource assessment program

- There is a need to develop a wind-monitoring program where the data are available to the public.
- There is a need for a system of measuring wind resources that will meet the requirements of bankers for giving loans on wind energy development.
- There is a need for information to back up local wind energy developers.
- If you have the wind resources information, developers will come.
- There is a need for an anemometer (wind energy assessment) program.
- The anemometer program is a root to the development of wind energy. Someone should go to the legislature to try to get assistance in developing one.
- The Idaho Energy Division could be the gateway for information on how to do assessment.

Electric Utility Involvement

- Idaho Power should become a shareholder in a wind project to gain experience.
- There is a need to encourage a renewable portfolio standard. Until mandates for Idaho Power to pay fair rates for renewable energy, Idaho Power will not buy it.
- Idaho Power has high roadblocks that prevent its purchase of renewable energy.

Energy Independence

- There is value to the United States in being somewhat energy independent.

Ways to sell wind power

- Make a fixed rate for purchasers of wind energy that is a little higher now, but will be fixed for 10 years. Consumers as well as wind energy producers may like this.
- There is a need for someone to negotiate a blanket contract for landowners to sell power to the utility.

Laws, policies, taxes and other barriers to and incentives for development

- There is a need to do research on how Idaho compares with other states in terms of the environment for renewable energy resource development, including wind.
- There needs to be state laws to help level the playing field in the comparison of renewable vs. non-renewable resource for the purposes of power production.

- The state needs to determine the kind of legislation that would help renewable energy resources get on line.
- Net metering needs to be annual vs. monthly to take advantage of wind energy in spring.
- There is enhanced investment tax credit for rural areas.
- There is a need to keep the Idaho income tax deduction and beef it up.
- There is a need for tax credits for renewable energy development. Tax deductions don't help if you have no income.
- "I thought this meeting was to sign up lessees? Instead it seems like a feel-good meeting. We should use tax money for wind development on public and private land. Why not start now? Tax money is used to subsidize other forms of energy—why not wind?"
- A renewable portfolio standard would help to get wind development started. There is a need to encourage a renewable portfolio standard.

Wind information, web site, etc.

- There is a need for a clearinghouse for employment of displaced technical people in wind energy development.
- There is a need for an information warehouse of wind resource data.
- Look at states that have legislation and put it on a wind energy web site for the state of Idaho. North Dakota may be a good model.
- There is a need for a source of information on small-scale wind energy applications.
- There is a need for information on towers for small wind applications.
- There is a need for a networking system so people working on wind energy development can talk to each other. (Chat room, etc.)
- There is a need for a guidebook for wind energy development (small and utility scale).
- Need to complete the higher-resolution wind resource map for Idaho and send to all meeting participants.

Financing

- Low-interest loans and grants would be useful.
- Financing is a problem. Bankers don't understand wind—there is a need for a system of measuring wind resources that will meet the requirements of bankers for giving loans on wind energy development.
- There is a need for information to back up local wind energy developers.
- The Idaho Energy Division should consider making grid-connected wind power (small-scale applications) eligible for its low-interest loan program.

Transmission, integration into the grid

- There is a need to study the synergy between wind and hydro.
- There is a need to be able to influence organizations and companies contemplating the installation of transmission lines to install them in high wind areas.
- The entire gamut of laws concerning electrical distribution and regulation needs to be reviewed. As it is now, it is difficult to move power from one utility to another.

Publicity/outreach/demonstration/fairs

- Roald Doskeland of Windland, Boise, offered to speak to groups to help support local developers.
- Things can change with grass-roots community support. Continue to conduct wind information meetings similar to North Dakota.
- There is a need for outreach on wind energy benefits to the community.
- Articles need to be written for local papers.
- Letters to the editor would also help.
- There is a need to encourage demonstration projects. A project could be built in the Portneuf Gap where 85,000 cars a day go by.
- The build-up of interest starts with meetings like the one here.
- There is a need for fairs and expos that include all aspects of renewable energy generation and energy conservation.
- It is important to get journalists on the side of wind energy. They will tell everyone else.
- There is a need to hear from other people (land owners) who have successfully developed wind power similar to what the Idaho Energy Division did with ethanol. (For example, the Energy Division brought in a state ethanol expert and the developer of an ethanol-producing cooperative for an ethanol plant, both from Minnesota, for ethanol production information meetings which took place in January of 2001.)

Small-scale wind development

- There is a need for a source of information on small applications—One couple said they needed to know in the next 30 days because they were building a house and would like to include wind energy if possible. The couple has an airport ¼ mile away.
- There is a need for information on towers for small wind applications.
- There is a need for fairs and expos that include all aspects of renewable energy generation and energy conservation.

Wind Energy Development Strategy

- There is a need for a state energy strategy. There is a need to know where we would like to be and possible methods of getting there.
- Idaho needs to do strategic planning in terms of energy for the state.

Others

- Idaho is currently a net importer of power.
- It takes a community-based effort to make it attractive for wind energy developers.
- There is a need for someone pounding the pavement to stir up interest in wind energy development like Jay Haley has done in North Dakota.
- There is a need to bring in the local economic development people in the development of wind energy. If someone can spend \$1,000,000 on a spaceport, why not spend as much on wind.
- Involve the Idaho Congressional delegation in this process—where do they stand on this issue?